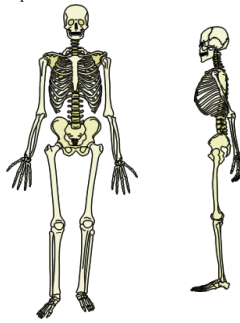
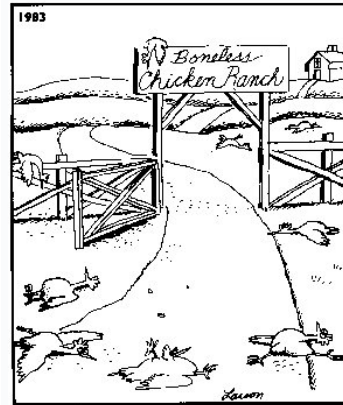


## Skeletal System

The skeletal system is comprised of 206 bones in the human body.



Sep 3-10:27 AM



Sep 8-7:41 AM

Bone is a rigid, calcified tissue and the primary component of the skeletal system.

The skeletal system has many crucial **functions**;

- creates the framework of the body
- surrounds and protects the internal organs
- stores calcium
- provides attachments for muscles
- houses bone marrow which is the location for blood cell formation

Sep 3-10:39 AM

Bone tissue is developed and maintained by 4 types of cells;

- **osteoprogenitor** cells (primary cells - will develop into osteoblasts)
- **osteoblasts** (form bone tissue)
- **osteocytes** (maintain tissue strength)
- **osteoclasts** (re-absorption of cell matrix in bone development, growth and repair)

Sep 3-10:43 AM

## Bone Material Constituents

A) Minerals: (calcium carbonate + calcium phosphate):  
60-70%  
source of stiffness & compressive strength

B) Collagen: (protein): -10%  
source of flexibility & tensile strength  
aging causes decrease in collagen and as a result, increase in fragility

C) Water: 25-30%  
important contributor to bone strength

Sep 3-10:54 AM

The skeletal system is broken into 2 main groups: **Axial and Appendicular** Skeletons

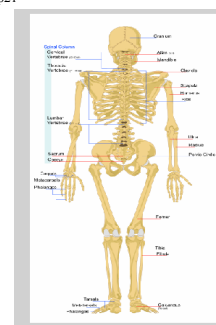
## Axial Skeleton (Central)

The axial skeleton is made up of the skull, vertebral column, and the thoracic cage (sternum and ribs)

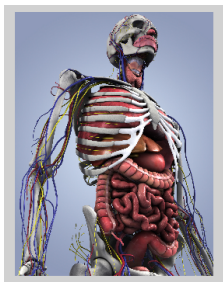
## Appendicular Skeleton (Peripheral)

The appendicular skeleton comprises the shoulder girdle and bones in the upper limbs and the pelvic girdle and bones in the lower limbs

refer to ACB p21



Sep 3-11:03 AM



Sep 4-10:52 AM



Sep 22-6:13 PM

Attachments

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YouTube - Joe Theisman vs. LT.flv